



Client: Cad Railways
 Client Ref #: 89259DB
 Our Ref #: M11-1002A

Product: Regular Unleaded Gasoline
 Date of Report: September 1, 2011
 Date sample received: August 24, 2011
 Date sample drawn: n/a
 Sample from: **Cad Railways**
Montreal

LABORATORY REPORT

Gasoline no additive

SAMPLE #	TEST	METHOD #	MIN	MAX	TEST RESULTS
MTL11- 7282	Density, kg/L @ 15°C	D4052-96(2002)e1	Report		0,7428
	API	Calculated			58,92
MTL11- 7282	Distillation	D86-07b			
	Atmospheric Pressure, kPa				100,2
	IBP, °C				32,1
	Evaporated at 10%, °C		70		55,2
	Evaporated at 50%, °C		70	120	101,0
	Evaporated at 90%, °C			190	153,1
	FBP, °C			225	194,5
	Residue, %				1,0
	Loss, %				1,4
	Recovery, %				97,6
	E200 (93.3 °C), % vol.		Report		42,2
	E300 (148.9 °C), % vol.		Report		86,3
MTL11- 7282	Vapor Pressure, kPa	D5191-07	41	72	55,9
MTL11- 7282	Octane Number, Research	D2699-08	Report		94,1
MTL11- 7282	Octane Number, Motor	D2700-08	82,0		84,4
	Octane Index	Calc.	87,0		89,3
MTL11- 7282	Gas Chromatography	CAN/CGSB 3.0 14.3-99			
	MTBE, % vol.		Report		< 0,01
	Benzene, % vol			1,0	0,71
	Methanol, % vol			0,3	< 0,01
	Ethanol, % vol			3,0	< 0,01
	Total oxigenates , % vol		Report		< 0,01
	Aromatics, % vol		Report		31,7
MTL11- 7282	Copper corrosion 3hrs @ 50°C	D130-04e1		No.1	1a
MTL11- 7282	Unwashed Gum, mg/100ml	D381-04	Report		13,4
MTL11- 7282	Washed Gum, mg/100ml	D381-04		5	< 0,5
MTL11- 7282	Lead content, mg/L	D3237-06e1		5	< 2,5
MTL11- 7282	Oxidation stability, min.	D525-05	240		> 240
MTL11- 7282	Sulfur, mg/kg	D5453-08b		80	12
MTL11- 7282	Ash, % mass	D482-03			< 0,001
MTL11- 7282	Gross Heat of combustion , Btu/lb **	D240-09	Report		20309
MTL11- 7282	Water Tolerance (at -42 °C) **	D6422	Report		No seperation @ -42 °C

** Tests performed by third party laboratory

Report issued by: Yves Aubin

Yves Aubin, Laboratory supervisor
THE OTI CANADA GROUP

September 1, 2011
 Date



Client: Cad Railways
 Client Ref #: 89259DB
 Our Ref #: M11-1002B

Product: Regular Unleaded Gasoline
 Date of Report: September 1, 2011
 Date sample received: August 24, 2011
 Date sample drawn: n/a
 Sample from: **Cad Railways**
Montreal

LABORATORY REPORT

Gasoline with additive

SAMPLE #	TEST	METHOD #	MIN	MAX	TEST RESULTS
MTL11- 7282	Density, kg/L @ 15°C	D4052-96(2002)e1	Report		0,7431
	API	Calculated			58,84
MTL11- 7282	Distillation	D86-07b			
	Atmospheric Pressure, kPa				100,3
	IBP, °C				31,3
	Evaporated at 10%, °C		70		54,8
	Evaporated at 50%, °C		70	120	101,4
	Evaporated at 90%, °C			190	151,6
	FBP, °C			225	190,9
	Residue, %				1,0
	Loss, %				1,8
	Recovery, %				97,2
	E200 (93.3 °C), % vol.		Report		41,5
	E300 (148.9 °C), % vol.		Report		86,6
MTL11- 7282	Vapor Pressure, kPa	D5191-07	41	72	55,9
MTL11- 7282	Octane Number, Research	D2699-08	Report		94,4
MTL11- 7282	Octane Number, Motor	D2700-08	82,0		84,8
	Octane Index	Calc.	87,0		89,6
MTL11- 7282	Gas Chromatography	CAN/CGSB 3.0 14.3-99			
	MTBE, % vol.		Report		< 0,01
	Benzene, % vol			1,0	0,67
	Methanol, % vol			0,3	< 0,01
	Ethanol, % vol			3,0	< 0,01
	Total oxigenates , % vol		Report		< 0,01
	Aromatics, % vol		Report		32,2
MTL11- 7282	Copper corrosion 3hrs @ 50°C	D130-04e1		No.1	1a
MTL11- 7282	Unwashed Gum, mg/100ml	D381-04	Report		11,1
MTL11- 7282	Washed Gum, mg/100ml	D381-04		5	< 0,5
MTL11- 7282	Lead content, mg/L	D3237-06e1		5	< 2,5
MTL11- 7282	Oxidation stability, min.	D525-05	240		> 240
MTL11- 7282	Sulfur, mg/kg	D5453-08b		80	11
MTL11- 7282	Ash, % mass	D482-03			< 0,001
MTL11- 7282	Gross Heat of combustion , Btu/lb **	D240-09	Report		20311
MTL11- 7282	Water Tolerance (at -42 °C) **	D6422	Report		No seperation @ -42 °C

** Tests performed by third party laboratory

Report issued by: Yves Aubin

Yves Aubin, Laboratory supervisor
THE OTI CANADA GROUP

September 1, 2011
 Date